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From Policing to Pedagogy: A Teacher-Centered Conceptual Model (TEACH) for Steering Generative AI in Homework and Assessment

John Oji
Department of Educational Foundations
University of Delta Agbor
Email: *john.oji@unidel.edu.ng*

Caroline Ochuko Alordiah
Department of Educational Foundations
University of Delta Agbor
Email: *caroline.alordiah@unidel.edu.ng*
ORCID ID: https://orcid.org/0000-0002-2917-9302

Abstract
The explosion of generative artificial intelligence (AI) and its effect on homework and assessment is fundamentally changing the role and integrity of homework and assessments in education today. Traditional approaches that are based on prohibition and detection have been proven to be insufficient and often fail to consider the underlying pedagogical conditions that allow for misuse. This is an article that proposes a teacher-centered conceptual framework (the TEACH model) that reframes the problem of academic integrity as a problem in instructional design and not compliance. Grounded in social constructivism, self-determination theory, and formative assessment, the model incorporates five interconnected domains of task redesign, explicit AI literacy, assessment shift, classroom culture, and human-centered pedagogy. The article draws on recent literature about AI in education and goes further, also by making teachers a key agent in the design of learning ecosystems that foster genuine engagement. Particular attention is paid towards implementation in a resource constrained context. The article offers a theoretically grounded model, a practitioner-oriented guide and a policy brief making recommendations on the enabling conditions for a systemic adoption.

Keywords: ***Artificial intelligence in education; generative AI; homework; academic integrity; teacher pedagogy; formative assessment; AI literacy; developing countries***

Introduction

The accelerated growth of generative artificial intelligence (AI) has completely altered the role of the homework in modern education. Tools like ChatGPT and other large language models are not only capable of providing assistance, but they are becoming more and more capable of creating complete and high-quality outputs that are very similar to something the student would write by themselves. This shift is a shift from AI as a supplementary aid towards AI as a possible substitute for student effort, thus challenging age-old expectations about homework as a proxy for learning (Cotton et al., 2024; Kofinas et al., 2024).

Traditional forms of assessment - especially essays, written assignments and even problem sets - have been based on the assumption that work submitted is evidence of individual cognitive engagement. However, generative AI has come to break this premise by making it possible to generate advanced responses without much input from the student. As such,

homework as an indicator of the amount of learning occurring is being increasingly undermined in its evidential value (Balalle & Pannilage, 2025; Chenube & Alordiah, 2024; Peterson, 2025). This transformation is being further supported by the views of students, with many learners recognizing the efficiency that this transformation brings, as well as the temptation of outsourcing thinking to AI systems (Chan & Hu, 2023; Johnson et al., 2024).

In reaction to these challenges, a lot of educational establishments have introduced surveillance-based strategies, together with AI detection tools and extra stringent educational integrity requirements. However, new evidence is emerging that approaches of this kind are not only technically unreliable but also pedagogically limited. AI detection systems are likely to make false positive and negative errors, which raises the issue of its validity and fairness (Cotton et. al., 2024; Peterson, 2025). Moreover, the fact that generative models are constantly evolving means that the detection technologies tend to be left behind, rendering the effectiveness of these technologies less effective over time (Balalle & Pannilage, 2025). In addition to technical limitations, approaches based on surveillance present serious ethical issues. The use of the tools for the detection can lead to the erosion of the trust of students and educators, especially when students are wrongly accused or they feel that they are being subjected to opaque evaluation processes (Johnson et al., 2024). Such measures run the risk of diverting the educational emphasis from learning to policing and thereby undermine the relationship and motivational building blocks of effective teaching and learning (Kofinas et al., 2024).

These limitations mean that the problem of student misconduct that generative AI presents is really a deeper pedagogical design problem. Rather than thinking of misuse of AI as a failure of student ethics alone, it might be possible to think of misuse of AI as an indication of lack of alignment between old homework practises and the reality of modern technology. In those occasions when the assignments revolve around product rather than process and when the assessment structure rewards product rather than learning, then students are more likely to exploit the features of AI in such a way that short circuits meaningful engagement (Balalle & Pannilage, 2025; Cotton et al., 2024). Reframing homework as a design problem keeps our attention not on compliance, but pedagogy. It brings to the fore the need to redesign the tasks, practises of assessment and classroom interactions in ways that make processes of learning visible and meaningful. This view is similar to increasing demands in the literature for moving away from reactive enforcement to more proactive instructional innovation (Peterson, 2025).

The disruption that generative AI is causing is complicated by the unequal effect in the educational setting. In developing and resource constrained settings, due to already existing structural challenges, such as high class sizes, lack of access to professional development and infrastructural constraints, the introduction of AI technologies is exacerbated. Access to AI tools is often uneven and this has resulted in new types of digital inequality that are intersected with existing socioeconomic disparity (Balalle, 2023). At the same time, teachers in these contexts are often under considerable pressure of workload or have a lack of institutional support to implement complex strategies of monitoring or redesign. These conditions scream out the need for approaches that are not just good pedagogy but are also context sensitive and able to be in a constrained environment.
While the literature on generative AI in education is still proliferating rapidly, it is scattered across multiple topics not only in academic integrity, but also in AI literacy and assessment reform. Existing studies have focused on student use of AI, ethical issues and institutional

responses but often separately from each other (Chan & Hu, 2023; Johnson et al., 2024). Systematic reviews indicate that there is little in the way of integrated frameworks, which pull these strings together and make them fit into a coherent pedagogical response (Balalle & Pannilage, 2025). Particularly absent, though, is a coherent, teacher-centric conceptual model that puts educators in the role of active learning environment designers in the age of AI. Such a model is needed to help bridge the gap between theory and practice and provide useful guidance on how to navigate the complexities created by generative AI.

In light of this void, this article proposes a teacher-centred conceptual model, called TEACH, for address of generative AI and homework/assignments. The model promotes an approach of pedagogical redesign of current practise from prohibition and detection to the cardinal domains of task redesign, explicit AI literacy, assessment shift, classroom culture and human-centred pedagogy, that are interdependent. The article has three main contributions. First, it provides a novel conceptual model (TEACH), which provides a coherent model to understand and respond to AI-related challenges in education. Second, it provides a theoretically based synthesis that combines information gleaned from learning theory, motivation and assessment. Third, it establishes a practise-policy bridge, with the translation of the model into practise at the level of teachers and school leaders as well as implications for the system as a whole. Together, these contributions are an attempt to redefine teachers not as the enforcers of academic integrity, but as architects of learning, in the age where artificial intelligence is playing an increasingly important role.

Conceptual and Theoretical Underpinnings

AI as a mediator tool (Social Constructivism)

The integration of generative AI in educational contexts can be interpreted quite insightfully in a social constructivist framework, in this case through the concept of mediation in learning. From this point of view, cognitive development is not a separate internal process but is conditioned through interaction with tools, language and social contexts. Generative AI is a new type of mediational tools that push the limits of what has been traditionally known as scaffolding by creating immediate, adaptive and context sensitive responses.

Unlike standard educational tools, AI systems are able to simulate dialogic interaction, provide explanations, generate examples and support iterative idea refinement. This puts AI in the position of an active participant in the learning process instead of a passive resource. However, such mediation also raises critical questions of where cognition lies: when AI does the lion's share of a task, the lines between aided learning and replaced thinking are blurred. Consequently the role of the teacher becomes increasingly important in structuring the way that AI is used as a scaffolding and not a replacement for cognitive engagement.

Motivation and integrity (The Self-Determination Theory)

Self-Determination Theory (SDT) is a powerful framework for understanding student use - and misuse - of generative AI. According to SDT, human motivation is influenced by satisfaction of three basic psychological needs: autonomy, competence and relatedness. When these needs are supported, learners are more likely to engage in intrinsically motivated and ethically aligned behaviour and when they are thwarted, extrinsic, potentially maladaptive strategies are more likely to be engaged (Deci et al., 1999).

Within this framework, the use of AI to complete assignments without any meaningful engagement can not be interpreted so much as a moral failure, but rather as a response to unfulfilled psychological needs. For instance, the students who feel overwhelmed or do not have a sense of competence can resort to AI as a compensatory tool. Similarly, highly

controlling instructional environments may be counterproductive to autonomy in that it increases the likelihood of shortcut-seeking behaviors (Reeve, 2009).
Reframing AI misuse in this way takes the onus for punishment off of design. It suggests that supporting conditions for autonomy - supportive and competence-building learning environments; relationally-meaningful learning environments - can reduce the incentive to misuse AI. Thus, academic integrity becomes closely tied to conditions of motivation and not just to enforcement of the rules.

Formative Assessment Procedure

Formative assessment procedure can offer further clarity to the problems that generative AI presents, especially due to its focus on making the learning process visible. Traditional assessment practises have often focused on the assessment of final products under the assumption that final products are good measures of underlying understanding. However, the fact that AI is able to produce good quality outputs shatters this assumption, requiring a shift towards process-oriented evaluation.
Black and Wiliam (1998) argue that good assessment is intrinsic to the learning process and gives continual feedback that leads to improvement. Similarly, Nicol and Macfarlane-Dick (2006) highlight the role played by feedback in the cultivation of self-regulated learners with the capacity to self-monitor and self-direct learning. In the case of AI these principles take on an even higher level of importance: When observable final outputs can be easily outsourced, the evaluation of intermediate steps, decision-making processes and reflective thinking processes become unavoidable (Abidoye & Alordiah, 2024).
Panadero (2017) further points out that self-regulated learning includes planning, monitoring, and evaluating one's own learning activities. Designing assessments that capture these dimensions-i.e., drafts, reflections, and iterative revisions-capturing the learning-can help to ensure that learning can remain visible and authentic in AI-rich environments.

Teacher agency as an absent construct

While social constructivism, self-determination theory and formative assessment offer good underpinnings, they do not fully explain the central role that the teacher plays in negotiating AI mediated learning environments. Teacher agency, the ability of teachers to make informed, context-specific pedagogical decisions, is revealed as a critical, yet frequently underappreciated, construct.
Reeve (2009) points out the key role teachers have in creating motivational climates, especially in the extent to which they adopt autonomy-supportive as opposed to controlling practises. Extending this insight to the context of AI, teachers are not simply implementers of policy, nor using technology: they are the designers of the learning ecosystems (and thus how tools, tasks and interactions are structured).
In the face of generative AI, it is a question of teacher agency, even more significant. Decisions on how tasks are designed, what AI use is considered acceptable, how assessments are designed and what norms are established in the classrooms all affect whether AI is seen as a learning support or a short-cut. Thus, the centrality of teachers changes the discourse from technological determinism to pedagogical intentionality.

Integrative synthesis

Taken together, these theoretical perspectives are in favour of the reconceptualization of homework and assessment in the age of generative AI. Social constructivism, which frames AI as a mediational tool that can support and displace cognition, self-determination theory, which describes the role of motivational conditions in influencing the engagement of students

with AI, and formative assessment theory-focusing on the need to make learning processes visible.

However, it is the combination of these perspectives through the lens of teacher agency which enables a coherent response. Rather than seeing AI as an issue that needs control, this synthesis leads towards the design-oriented and teacher-centered paradigm where the educators are actually shaping the conditions under which AI is used. This paradigm puts pedagogical design forward as the key mechanism for ensuring meaningful learning and for academic integrity. It offers the conceptual framework for the TEACH model suggested in this article which operationalizes these theoretical insights into a structured framework for practice.

The TEACH Model: A Teacher Centred Approach

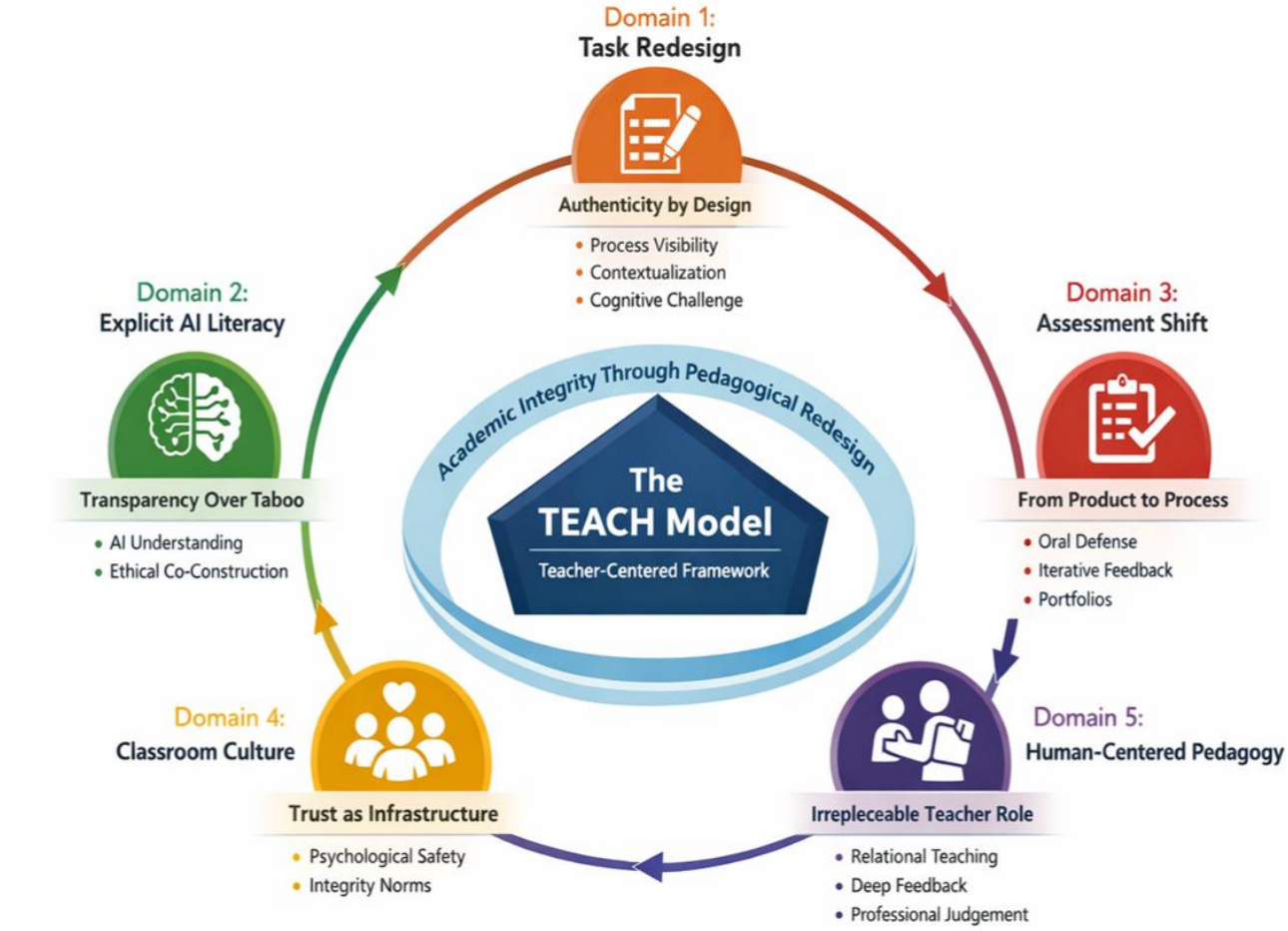

Figure 1: The TEACH Model

Model overview

In light of the limitations of surveillance-based approaches to academic integrity in the age of generative AI, this article offers up the TEACH model, a teacher-centred conceptual framework for homework and assessment redesign. TEACH is an acronym that represents five areas which are interdependent: Task redesign, Explicit AI literacy, Assessment shift, Classroom culture and Human-centred pedagogy (Figure 1).

Rather than as a series of isolated strategies, the model is conceptualised as a systemic model which puts teachers in the position of designers of learning environments. It brings out the deliberate alignment of tasks, assessment, norms and instructional practices that are designed

to ensure that learning is meaningful, visible and authentic in AI-rich contexts. In this sense, TEACH is rather an additive intervention which is superimposed to existing practices than the reconfiguration of pedagogical design in response to structural changes inserted by generative AI.

Core proposition

The central proposition of TEACH model is that academic integrity of the AI era is best realised through pedagogical redesign as opposed to technological restriction. While detection tools and policy enforcement may have a supplementary role but this does not address the underlying conditions which aid or incentivise misuse.

Emerging research has shown that the more student's assessment practises are focused on the final product the more likely they are to use AI as replacement for learning (Kofinas et al., 2024; Kizilcec et al., 2024). Conversely, in the more the learning processes are made visible and the tasks are made contextualised, the iterative and reflective, the less it is possible to use the AI superficially. The TEACH model operationalizes this shift by incorporating the wisdom of authentic assessment, AI literacy and formative feedback into a coherent pedagogical framework.

Structure or architecture of the model

The TEACH model comprises of five domains which function as an interdependent system. Each domain addresses a different component of the learning environment but how effective they are depends on how they are aligned. For instance, unless there is a corresponding change in assessment, the practise of task redesign might be seen as process-oriented learning, whereas AI literacy without supporting classroom culture might lead to the learning of "compliance" instead of "engagement." This systemic architecture is the manifestation of the understanding that academic integrity is not the result of one time intervention but the result of a coordinated pedagogical design.

Domain 1 Task Redesign (Authenticity by Design)

Task redesign is the base area of the TEACH model which deals with the creation of learning activities which are inherently resistant to the substitution of easy AI. Based on the literature about authentic assessment, the most important characteristics of effective tasks are process visibility, contextualisation and cognitive demand (Ashford-Rowe et al., 2014; Gulikers et al., 2004).

First, process visibility, which means structuring tasks so that parts in between (such as draughts, reflections, decision making processes, etc.) are a part of the assignment. This is in line with evidence that authentic assessment should not only measure outcomes but also the processes in which the outcomes are generated (Villarroel et al., 2018; Vlachopoulos & Makri, 2024).

Second, contextualization also ensures that tasks are grounded in local/personal/situational contexts that are not so readily accommodated by the generic AI-generated responses. Tasks that ask the student to use their experiences of the lived, local or specific classroom discussion increase the sense of authenticity, and reduce the possibility of replacing by AI.

Third, cognitive demand shift, this means the design of tasks promoted the higher order thinking, such as analysis, synthesis, and evaluation, rather than reproduction of information. Research has shown that as AI gets better at producing typical responses, the value of being able to assess it decreases as the value of the assessment is increasingly in complex, context sensitive reasoning (Kizilcec et al., 2024; Kofinas et al., 2024).

Domain 2: Explicit AI Literacy (Transparency vs. taboo)

The TEACH model rejects the idea of AI being a tool that is forbidden or even secretive, instead, it supports the idea of explicit AI literacy as a central part of teaching and learning. AI literacy therefore means having an understanding of how AI systems work, their capabilities and limits, and the ethical considerations that exist around their utilisation (Long & Magerko, 2020; Ng et al., 2021).

Positioning AI as an object of learning helps to make students actively engage with the outputs of AI rather than passively use them. This involves testing the accuracy of the AI-generated knowledge, identifying any biases, and being aware of the limitations of the AI-generated knowledge (Chiu et al., 2024; Stolpe & Hallström, 2024). Equally important is the co-construction of ethical guidelines of the use of AI within the classroom. Rather than enforcing top-down rules, engaging students in the dialogue of acceptable practises can help establish ownership and is in line with the new views on responsible AI integration in education (Su & Ng, 2023).

Furthermore, not only students are concerned with AI literacy, as the role of teachers is also changing and they need to develop new skills in integrating AI tools in a pedagogic way. As highlighted by Zhai (2025), teacher agency and knowledge of AI play an important role in how AI technologies are actually implemented.

Domain 3 Assessment Shift (From product to process)

A major foundation of the TEACH model is the shift from the assessment of end products to the learning processes. Formative assessment research has been consistent in its findings that meaningful learning will be supported when feedback is continuous, dialogic and focused on improvement rather than judgement (Alordiah & Okoro, 2018; Boud & Falchikov, 2006; Hattie & Timperley, 2007).

Key strategies in this area include oral defence, iterative assessment and portfolio based evaluation. Oral defense, like mini viva-styles of conversations, allows teachers to check for understanding as well as probe reasoning in ways that AI cannot. Iterative assessment is about cycles of writing, feed-back and re-writing, which is consistent with the principles of self-regulated learning (Nicol & Macfarlane-Dick 2006; Panadero 2017).

Portfolio approaches are additional ways of helping process-oriented approaches to assessment by evidence of growth over time, and documenting multiple dimensions of learning. Such approaches are also in line with calls that are beginning to be made for making evaluative judgement visible in AI augmented contexts (Sharma, 2026).

Domain 4: Classroom Culture (Trust being infrastructure)

The success of pedagogical redesign is dependent on the culture of the classroom. The TEACH model puts trust, psychological safety and norms to work in the context of academic integrity. Research suggests that student cheating behaviour has a strong influence of perceived norms, peer behaviour and motivational climates (Anderman & Koenka, 2017; Zhao et al., 2022).

Creating a culture where productive struggle is norm and where learning is valued over performance have the effect of lowering the incentive to misuse AI. This includes creating environments in which students are safe to say that they don't understand; are safe to ask for help and safe to take intellectual risks.

Additionally, integrity is reinforced if there are clear expectations and they are consistently reinforced. Frameworks like the "educational integrity enforcement pyramid" emphasises the importance of working together with support, education and proportionate accountability in

the problem-solving of misconduct (Ellis and Murdoch, 2024). Ultimately, classroom culture is the social infrastructure to support all of the other domains in the TEACH model.

Domain 5: Pedagogy (Irreplaceable teacher role) Human Centred

Despite the fact that AI is now becoming more and more capable, the TEACH model stresses on the continued importance of human-centred pedagogy. Teachers play an irreplaceable role in providing relational support and nuanced feedback and professional judgement that cannot be replicated by AI systems.

Research on teacher agency is concerned with the importance of educators as active producers of learning experiences particularly in technology-rich settings (Brod et al., 2023; Nagel et al., 2023). Similarly, frameworks, including the intelligent-TPACK, emphasise on the importance of the understanding of teachers in regard to a technological, pedagogical and ethical understanding that is required in using AI tools (Celik, 2023). One of the most important components of this domain is feedback depth, i.e. providing targeted, dialogic feedback to help students with their understanding/growth. Feedback Literacy Research Suggests Both Teachers and Students Need to Develop Capacity to Engage Meaningfully with Feedback Processes Chan, X., & Luo, L. (2021). Human-centred pedagogy also involves the development of relational trust which is the foundation for effective learning as well as a decrease in the need for external shortcuts.

System dynamics

The TEACH model is a dynamic system with interaction and feedback loops in the five domains of the model. Changes in one area have ramifications and are strengthened by changes in other areas. For example task redesign to increase visibility of process involves appropriate shifts in assessment and successful AI literacy requires a supporting classroom culture.

Importantly, the model highlights the failure of single domain interventions. Isolated strategies - adding AI literacy, but no changes to assessment practices, redesigning tasks, but not addressing norms in classroom, etc. - are unlikely to have any sustained impact. Instead what is required is coordinated action in all areas. By taking the principles of TEACH and thinking of academic integrity as an emergent property of a well-designed learning ecosystem, we provide a framework for offering a holistic approach to navigating the complexities of generative AI in education.

Contextual Adaptation: TEACH in Resource Limited Settings

Why context matters

As the framework the TEACH model provides is a generalizable model, it is important to understand its implementation as inherently context-dependent. Much of the current emerging literature on generative AI in education represents Global North contexts with relatively stable infrastructure, lower student : teacher ratios and increased access to digital tools. Applying these models without being critical of the risks reproducing inequities and ignoring the structural realities of resource constrained settings.

Research on digital inequality points out that access to technology, digital competencies and institutional support differ greatly from one context to another setting how students and teachers engage with educational technologies (Ayalon et al., 2022; Wang et al., 2024). In addition to this, wider socioeconomic inequalities intersect with access to technologies,

which affects both the opportunities for learning and the risk of exclusion (Asongu et al., 2023).

Recent work on AI-enhanced pedagogies in the Global South further highlights the need for context responsive AI-enhanced pedagogies that consider infrastructural limitations, cultural norms, and institutional constraints (Khoza & Van Der Walt, 2025). Accordingly, the TEACH model needs to be adapted not so much a fixed prescription but what could be termed a flexible framework that is responsive to local conditions.

Scaling in the large classroom

One of the most important challenges in many educational systems is the presence of large class sizes that can limit the use of individualized and process-oriented assessment strategies. Within the model of TEACH this requires the building of distributed means of assessment which utilize peer interaction and structured protocols.

Peer assessment, for example, can be used for scalability of feedback processes while at the same time building student evaluative judgement and feedback literacy. When aided by clear rubrics and structured guidance, peer-based approaches can mitigate on teachers workload while preserving the integrity of process-focused assessment. Such strategies are consistent with much wider evidence in relation to collaborative learning and feedback practices, which stress the importance of shared responsibility for learning in the classroom community.

In addition, selective sampling approaches, such as orally checking a sample of students, or varying the type of assessment, may be helpful for balancing time constraints with the need to create opportunities for authentic assessment.

Adaptations that are low tech and no tech

In situations that lack access to digital tools, however, the TEACH model can be deployed in low-tech or no-tech ways, that retain the key principles at the core of the model. Designing for "AI-optional" Environments Ensures Pedagogical Integrity is Not Dependent on Technological Availability.

For example, process visibility can be obtained through hand-written craft, in-class activity, and oral explanation, and contextualization can utilise local knowledge, community experience, and culturally relevant material. These approaches have the benefit of not only addressing inequities in access, but also in making the learning more authentic by situating learning in the context of students lives. Importantly, such adaptations subvert the presumption that successful responses to AI must themselves be technologically driven. Instead, they reassert the primacy of pedagogical design rather than reliance on technology.

Teacher workload realities

Teacher work is one of the most important limitations in the adoption of pedagogical innovation, especially in poor systems. The TEACH model recognises this reality and looks at AI not only as a tool for students, but as a possible support for teachers as well. AI can be used to decrease administrative workload, aid in lesson planning, and create prompts for feedback so that more time can be spent on more relational and cognitively challenging aspects of teaching. However, this needs to be integrated carefully so that AI can augment and not replace professional judgment. It is very important to balance innovation with feasibility. Strategies like incremental implementation, teacher collaboration and using shared resources can be useful to distribute the workload and maintain change over time.

Cultural expectations and parental expectations

Educational practices are deeply rooted in cultural norms and parental expectations which determine views on rigor, success and the appropriate use of technology. In many situations,

traditional homework (often typified by visible, product-based results) is closely related to academic seriousness. The move towards more process-oriented less visible sorts of learning may therefore be treated with scepticism or resistance. Addressing this involves redefining concepts of rigor and learning so that they emphasize that greater engagement, critical thinking and authentic understanding are more meaningful measures of achievement than polished end-products. Engaging parents and communities through clear communication, examples of student work, and opportunities for dialogue can help to build understanding and support for these pedagogical shifts.

The diversity of languages is a pedagogical asset

Linguistic diversity, which is sometimes seen as a problem in standardized systems of assessment, can be seen as a pedagogical strength of the TEACH model. Incorporating local languages into tasks and assessments can add authenticity and the ability to reduce the dependency of generic AI generated outputs which are usually optimised for dominant global languages. Using more than one language in learning tasks enables students to use their entire language repertoire to support their understanding and to express themselves in a more meaningful way. It also creates opportunities for culturally relevant pedagogy with a value and importance for local knowledge and identity. In this way, linguistic diversity cannot be a barrier but can be a resource in designing tasks that by default are resistant to being dealt with superficially by any AI program but encourage inclusive and context sensitive learning.

Translating Theory to Practice (Teach Practitioner Guide)

Overcoming the research-practise gap

A long standing problem in educational research is the disconnect between theory and practise. While models like this one (TEACH) provide clarity theoretically, there is a danger that they are less impactful if not transformed into something a teacher can do. Research on feedback literacy and assessment practise emphasises that to be effective and to be useful, feedback implementation needs to be not only grounded in knowledge, but also to have practical tools, to be adapted to the context and to be ongoing (Carless & Boud, 2018). Without these elements, frameworks that are well designed may not have an impact on the day-to-day practices of teaching.

Self-audit diagnostic tool

To facilitate the implementation process the TEACH model can be operationalised in terms of a self-audit diagnostic tool for teachers to reflect upon their existing practices in relation to the five domains. Such a tool places teachers on a continuum of progression - from being aware to more sophisticated integration - showing teachers areas of development and prioritisation. This reflective approach is consistent with the research that focuses on the importance of teacher and student feedback literacy, which refers to the capacity to interpret, enact and enhance learning practices (Hoo et al., 2022). By making pedagogical practices visible, the self-audit tool gets the conversation on learning started, and is a starting point for intentional change.

Implementation matrix

An effective practitioner guide should contain an implementation matrix to support decision-making including specifying key parameters such as:

- Time demands (e.g. short term changes vs long term redesign)
- Resource levels (low/medium/ high)

- Scalability to various class sizes and contexts

Such matrices help teachers to choose strategies that are feasible within their particular constraints so that incremental and sustainable change can take place. This approach is consistent with the principles of authentic assessment redesign, which focus on the principles of pedagogical alignment with practical conditions (Villarroel et al., 2020).

High-leverage practices

Rather than calling for whole systems transformation, the TEACH model focuses on high leverage, minimum viable transformation that can make a difference. Examples include:

- Incorporating reflective components of assignments (a few assigned questions to add at the end of a task)
- Incorporating short oral cheques
- Using Organized Peer Feedback Activities

Research suggests that even small changes to the practices of feedback and assessment can make significant improvements to student engagement and learning outcomes when the changes are made consistently (Carless & Boud, 2018).

Expository class room designs

To improve usability, the practitioner guide should contain illustrative classroom designs in the form of mini case narratives instead of abstract activities. These narratives offer real-life examples of how TEACH principles can be put into practice and demonstrate both successes and challenges.

Embedding feedback literacy within the classroom activities (through cycles of peer review/revision/reflection) to model how the theory can be put into practise (Malecka et al., 2022). Such examples make the model more accessible and flexible for educators of any type in any place.

Ways of handling constraints and resistance

Change in pedagogical practices is inevitably a journey through resistance by multiple actors such as students, parents and institutions. Students may not be receptive to a greater level of process transparency, especially if they are used to product-based evaluation. Parents may question the decrease of traditional outputs of homework while institutional policies may emphasize on standardized assessment practices. The way to address these challenges involves a combination of clear communication, gradual implementation and alignment of expectations with the institution. Providing evidence of learning using portfolios and process documentation can help to demonstrate the value of new approaches. Ultimately, successful implementation requires recognition of the fact that pedagogical change is not merely a technical process, but a social process, requiring negotiation, adaptation and commitment to change over time.

Facilitating Conditions for Adoption at a Systems Level

Why change on the teacher level is not enough

While the TEACH model focuses on teacher agency as the key leverage point for pedagogical redesign, on the teacher level change is not sufficient to address the systemic challenges created by generative AI. Educational practises are set in the broader institutional and policy context of assessment conventions, work loads and accountability mechanisms. Research on academic integrity focuses on the fact that academic integrity is not a matter of individuality but a systemic phenomenon, which is influenced by institutional cultures,

assessment policy, and structural pressures (Allen & Kizilcec, 2024). Similarly, the views of faculty suggest that if there is no existence of policies in support and alignment of institutional frameworks, the efforts to adapt to the changes brought by AI are fragmented and more difficult to sustain (Alsharefeen, & Al Sayari, 2025). Thus, to be effective in implementing the TEACH model, requires the coordinated actions to be taken outside the classroom by addressing the structural constraints limiting pedagogical innovations.

Policy- practice alignment framework: Five enabling conditions for TEACH adoption

To help support systemic adoption, in this article, five enabling conditions are proposed that will facilitate policy and pedagogical practice to be aligned:

- Learning ecology for professional learning
- Assessment policy reform
- Infrastructure such as condition of equity
- Community legitimacy
- Governance and ethical protection

These conditions play a role as a policy-relevant framework of practises and policies which assure that the innovations at the teacher's level are supported, reinforced and sustained in the broader educational systems.

Ecosystems of professional learning

Effective implementation of the TEACH model requires sustained investment in professional learning ecologies moving beyond one-off training sessions. Teachers need ongoing opportunities for collaboration with continuous and practise based opportunities to learn new competencies regarding task design, AI literacy and process oriented assessment. Such ecosystems should include learning communities among peers, co-design workshops and possibilities for reflective practice. Evidence indicates that professional development is probably most effective when it is situated in the ongoing work of teachers and it is supported with ongoing collaboration rather than stand-alone interventions (Alsharefeen & Al Sayari, 2025).

Assessment policy reform

Assessment policies are an important part in influencing classroom practises. High-stakes and product-oriented assessment systems can frustrate the move toward process-based learning through the reinforcement of learning pressures and incentives for short-cut behaviors. Changes in assessment policies to support portfolio-based assessment, iterative assessment and diversified evidence of learning is important to the alignment of institutional expectations with the TEACH model. There are emerging frameworks that signal the importance of making the process of evaluative judgement transparent, and including a wide range of forms of assessment to record authentic learning (Sharma, 2026). Dumbing down the weight of high stakes assignments and acknowledging evidence that is process-oriented can help to eliminate distortions that are induced by traditional grading systems.

Infrastructure in the form of equity condition

Infrastructure must be understood not just in terms of access to devices and connectivity but should be understood in terms of meaningful and equitable use. Digital inequality research suggests that inequalities of access, skills and support may make a significant difference in how students benefit from educational technologies. Policies should therefore focus on equity of access to resources as much as it should support the development of a digital and AI

literacy for both students and teachers. In addition, investment in offline-capable tools and adaptable resources can help ensure inclusivity in the context of connectivity limitations.

Community legitimacy

Sustainable pedagogical change requires the alignment to between schools, families and wider communities. Shifts in emphasis towards process-oriented assessment, and de-emphasizing traditional homework outputs may challenge established expectations of what constitutes "rigorous" learning. Building community legitimacy includes communication in an understandable way, engagement of parents and demonstrating student learning with portfolios and documentation of process. When stakeholders understand the rational behind pedagogical changes, resistance is reduced and support of the innovation is increased.

Government and issues of ethics

Finally, the integration of AI in education raises important questions of governance, data privacy and accountability. Institutions need to have clear guidelines on acceptable use of AI and make sure policies are created collaboratively with educators and sensitive to future technological environments. Frameworks such as educational integrity enforcement pyramid, promote the need to have a balance between support, education, and accountability in addressing misconduct (Ellis & Murdoch, 2024). Similarly, in the systemic approaches to academic integrity, there is a focus on the need for coordinated governance structures, which deal with both prevention and response (Allen & Kizilcec, 2024). Ensuring transparency in the use of AI tools, preserving student data, and ensuring accountability for technology providers are essential parts of ethical implementation.

Discussion

This article makes a contribution to literature redefining generative AI not only from the technological tool but from the pedagogical disruptor demanding fundamental changes in teaching and assessment. In doing so, it has the effect of shifting the discourse away from academic integrity being a problem of cheating to academic integrity as a problem of design. By combining insights from constructivism, self determination theory and formative assessment, the TEACH model provides a coherent framework of the way on which to deal with these challenges by means of pedagogical redesign rather than technological control.

The TEACH model also contributes to the re-centering of the professionalism of teachers in the debate on AI in education. Rather than placing teachers as monitor of student behaviour, or passive adopters of technology, the model instead puts them in the role of learning designers and relational practitioners. This way of thinking counters storeys that AI will replace teachers, but focuses on the human factors of teaching that are so unique - such as judgement, empathy and understanding the context - are still needed in AI-mediated environments.

The findings have important implications for the education of teachers. Preparing teachers for the AI era requires a paradigm shift in their preparation from preparation focused on tools to preparation focused on pedagogical design capabilities that entail a task redesign, assessment innovation, and ethical AI integration abilities. Teacher education programs must therefore include AI literacy, feedback literacy, and design-based thinking as integral components of their programs in order to ensure that the future educators are prepared to work within the context of fast-changing technological systems.

As a conceptual model, there are a number of limitations of the TEACH model. First, it requires some empirical validation in order to measure its efficacy in various circumstances.

Second, its implementation can widely differ from one place to another depending upon local conditions such as resources and institutional support. Finally, the speed of generative AI technologies means that the model will need to be constantly updated in order to keep it relevant. These limitations present a case for the continued research and adaptation.

Of course, there are three important areas that future research should address:

1. Means of longitudinal and experimental research to evaluate the impact of the TEACH model on learning and academic integrity should be done.
2. Research with teachers in the joint design and iterative re-design of pedagogies using artificial intelligence.
3. Studies of the impact on the adoption and effectiveness of pedagogical innovation of institutional and system-level policies.

Such research will have a huge role to play in developing the evidence base and broader uptake of the model.

Conclusion

The central argument of this article is that that academic integrity in the age of generative AI is not something that can be enforced through control mechanisms - it has to be designed into the learning environment. Rather than looking at AI as an enemy of the integrity of education, it can be reframed as the spur for pedagogical change. By getting educators to rethink tasks, assessment and classroom culture, AI gives us the opportunity to transition to more authentic, process-oriented learning. Realising this potential is linked to systems-wide alignment both between classroom practises, institutional policies and across the educational systems. Teachers need to be supported as key agents of change with the tools, knowledge and autonomy to re-design learning for the AI era. Only coordinated efforts of this type can help generate and employ generative AI - not as a shortcut around learning, but as a tool for deepening and enriching it.

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